



COUNTY OF SAN DIEGO  
**Great Government Through the General Management System – Quality, Timeliness, Value**  
DEPARTMENT OF HUMAN RESOURCES

CLASS SPECIFICATION

CLASSIFIED

HYDROGRAPHIC INSTRUMENT TECHNICIAN

Class No. 003803

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■ CLASSIFICATION PURPOSE

To operate, calibrate, repair, fabricate, and service a variety of rainfall, stream-flow, and other hydrological monitoring and sampling instruments, equipment and component parts; and to perform related work as required.

■ DISTINGUISHING CHARACTERISTICS

The Hydrographic Instrument Technician is a technical class. Under general supervision, incumbents are responsible for maintaining equipment and instruments to standard.

■ FUNCTIONS

**The examples of functions listed in the class specification(s) are representative but not necessarily exhaustive or descriptive of any one position in the class(es). Management is not precluded from assigning other related functions not listed herein if such functions are a logical assignment for the position.**

Essential Functions:

1. Sets-up, or assists in setting-up, rainfall, stream-flow, and other hydrological sampling and monitoring instruments and equipment at the field monitoring stations.
2. Services and overhauls mechanical and electrical components in the shop or field.
3. Runs calibration tests on hydrological equipment and makes simple modifications of instruments or equipment to correct operating difficulties.
4. Prepares and maintains records of instrument functions and log results.
5. Collects and reports data from various types of automatic sampling equipment.
6. Assists in the maintenance of various hydrological databases to maintain integrity.
7. Assists in the research and development of new hydrological equipment and methods.
8. Orders supplies and requests replacement parts for instrument and equipment repairs.
9. Provides responsive, high quality service to county employees, representatives of outside agencies and members of the public by providing accurate, complete and up-to-date information, in a courteous, efficient and timely manner.

■ KNOWLEDGE, SKILLS AND ABILITIES

Knowledge of:

- Operation, care, and maintenance of electrical and mechanical tools used to service hydrological measurement equipment, instruments and component parts.
- Hydrographic terminology.
- Principles, procedures and techniques involved in monitoring, sampling and evaluating.
- Safety methods and devices used in working with electronic circuits and while in the field.
- Principles and practice used in the maintenance of hydrological equipment.
- Methods and techniques of maintaining records and reports of measurements and observations.
- Technical quantitative standards for maintaining and servicing instruments and equipment.
- County customer service objectives and strategies.

Skills and Abilities to:

- Operate, calibrate, troubleshoot and repair hydrographic instruments.
- Maintain logs and records.
- Order equipment and supplies.
- Establish effective working relationships with management, employees, employee representatives and the public representing diverse cultures and backgrounds.
- Treat County employees, representatives of outside agencies and members of the public with courtesy and respect.

■ EDUCATION/EXPERIENCE

Education, training, and/or experience that demonstrate possession of the knowledge, skills and abilities listed above. Examples of qualifying education/experience are:

1. Two (2) years of progressively responsible experience involving the installation, service and repair of equipment and instruments which utilize electronic, radio, and mechanical principles similar to those employed in rainfall and stream-flow, monitoring, sampling and measuring, OR
2. One (1) year of college level course work in the field of hydrology, meteorology, or a related earth science, AND one (1) year of experience involving the installation, service and repair of equipment and instruments which utilize electronic, radio, and mechanical principles similar to those employed in rainfall and stream-flow, monitoring, sampling and measuring.

■ ESSENTIAL PHYSICAL CHARACTERISTICS

**The physical characteristics described here are representative of those that must be met by an employee to successfully perform the essential functions of the classification(s). Reasonable accommodation may be made to enable an individual with qualified disabilities to perform the essential functions of a job, on a case-by-case basis.**

Continuous upward and downward flexion of the neck. Frequent: driving, sitting, walking, standing, bending and twisting of neck, bending and twisting of waist, squatting, simple grasping, reaching above and below shoulder level, and lifting and carrying materials weighing up to 80 pounds. Occasional: complex grasping, repetitive use of hands to operate photographic reproduction machines.

■ SPECIAL NOTES, LICENSES, OR REQUIREMENTS

License

A valid California class C driver's license, which must be maintained throughout employment in this class, is required at time of appointment, or the ability to arrange necessary and timely transportation for field travel. Employees in this class may be required to use their own vehicle.

Certification/Registration

None Required.

Working Conditions

Will be driving frequently to maintain hydrological stations throughout San Diego County. Many of the stations are located in remote terrain, which may require the use of four-wheel-drive vehicles and/or walking significant distances while carrying moderate loads. Some station locations may require climbing ladders, towers, and the use of fall restraints. Will be working under extreme weather conditions at times (high heat, low temperatures, snow, rainfall, and flooding).

Background Investigation

Must have a reputation for honesty and trustworthiness. Misdemeanor and/or felony convictions may be disqualifying depending on type, number, severity, and recency. Prior to appointment, candidates will be subject to a background investigation.

Probationary Period

Incumbents appointed to permanent positions in this class shall serve a probationary period of 6 months (Civil Service Rule 4.2.5).

**New: June 25, 1982**  
**Revised: October 2, 2001**  
**Revised: June 15, 2004**  
**Revised: June 2005**

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Hydrographic Instrument Technician (Class No. 003803)

Union Code: PS

Variable Entry: Y